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# (12) United States Patent Yeh

## (54) NONLINEAR OPTICAL ASSEMBLY OF AN ALERT LIGHT

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#### (57) ABSTRACT

A nonlinear optical assembly of an alert light has two nonlinear optical halves obtained by symmetrically dividing the nonlinear optical assembly along an optical reference plane wherein each optical half has a base, which takes a nonlinear and curved form with one side thereof corresponding to the optical reference plane and having a junction surface, a light entrance portion and a light exit portion are on two opposite sides of the optical reference plane, and the two optical halves are assembled to form the nonlinear optical assembly with the junction surfaces therebetween. Given the light exit portions of the optical halves, each light entrance portion corresponds to multiple bulged portions for the nonlinear optical assembly to provide uniform lighting effect. The nonlinear optical assembly reduces molding and manufacturing requirements.

#### 3 Claims, 15 Drawing Sheets

